

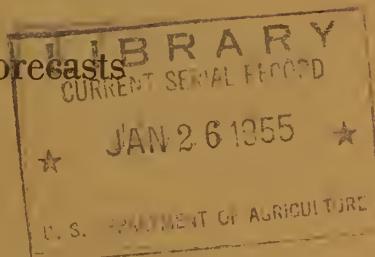
Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

31 FEB
P. 2



Federal-State Cooperative
Snow Surveys and Water Supply Forecasts
for
OREGON



SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND
OREGON AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U.S. Forest Service, National Park Service and other Federal, State and local organizations.

— AS OF —
JANUARY 1, 1955

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY
AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge
River Forecast Center
U. S. Weather Bureau
712 Federal Office Building
Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Meteorologist in Charge.....Columbia River and
Weather Bureau Office tributaries below Grand
320 Custom House Coulee Dam, except the
Portland 9, Oregon Snake River and tribu-
tarries.

Meteorologist in Charge.....Oregon and California
Weather Bureau Airport Station Coast drainage, from and
Box 1072 including Umpqua River
Medford, Ore. Basin, southward to and
including Klamath River
and tributaries; the
Great Basin in Oregon

State of Oregon

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS
FOR
OREGON

Issued
January 9, 1955

Report Prepared
by
W. T. Frost, Hydraulic Engineer
and
Manes Barton, Assistant Water Forecaster

Soil Conservation Service
and
Oregon Agricultural Experiment Station
209 S. W. 5th Avenue
Portland 4, Oregon

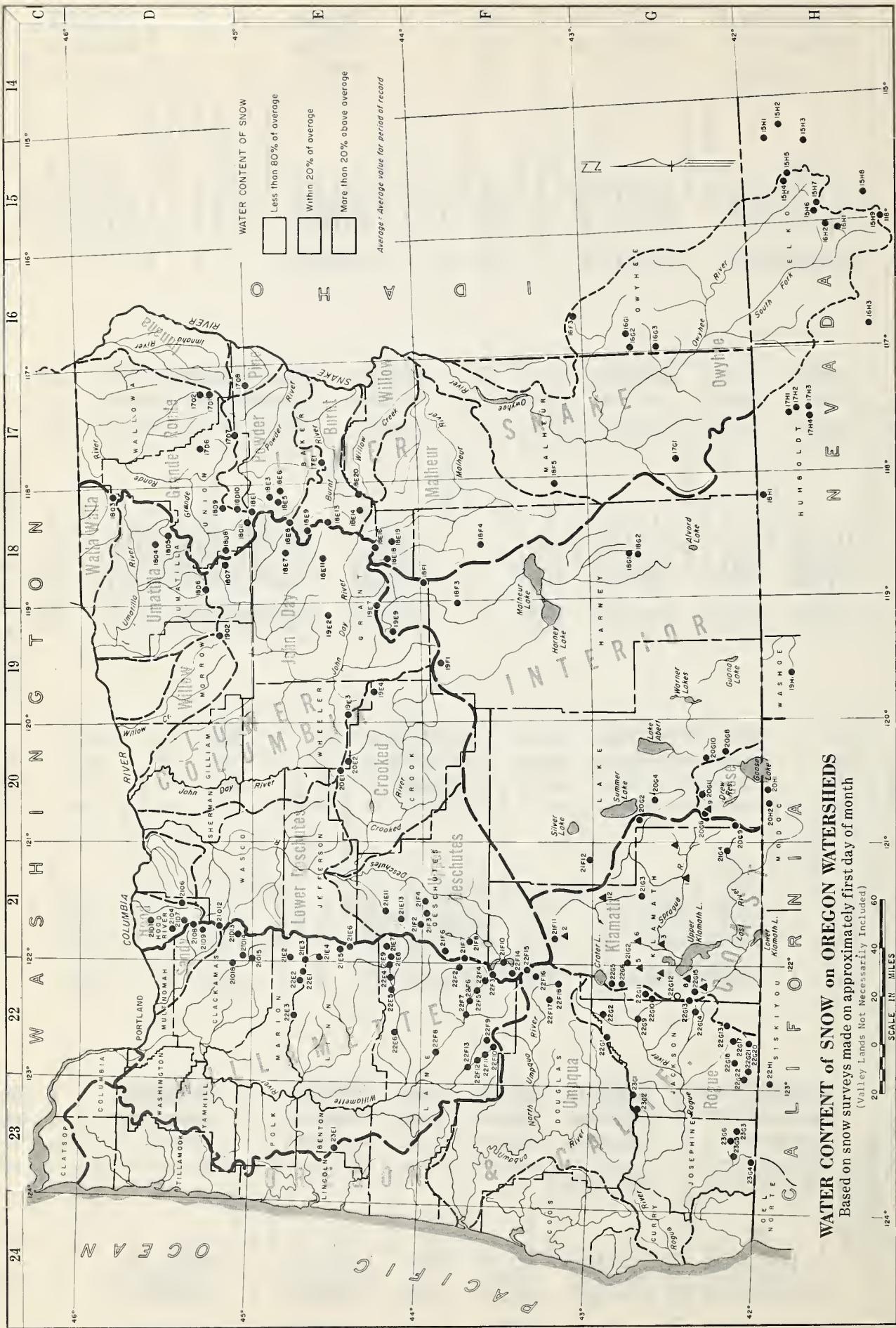
Issued by:

Harold E. Tower
State Conservationist
Soil Conservation Service

F. Earl Price
Director
Oregon Agricultural Experiment Station

INDEX to OREGON SNOW COURSES

Number	Name	Location	Elev.	Number	Name	Location	Elev.	Number	Name	Location	Elev.	Number	Name	Location	Elev.
UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)															
OHIO RIVER BASIN															
Barren Valley															
1875	Big Bend	26 27S 12000	36S 12000	1805	Lucky Strike	28	35 22E 5050	22E1	Detroit (town)	1 10S 1500'	5E 1500'	2012	Crowder Flat	(Cal) 21 47N 11E 5200	
1875	Cliffs	(Nev) 30 15N 67000	55 15N 67000	1805	Meacham	2L & 25	35 22E 5050	22E2	Detroit Lake	9 36S 58 6000	5E 1500'	22G12	Fourmile Lake	12 39S 11E 1350	
1875	Fry Canyon	(Nev) 30 15N 52000	55 15N 52000	1803	Tollgate	2L & 25	35 22E 5070	22E3	Hoggs Pass	2L 13S 7E 1755	5E 1500'	21E5	Hett Prairie Reservoir	15 39S 11E 1350	
1875	Gold Creek	(Nev) 31 15N 67000	55 15N 67000	1902	Arbuckle Mountain	33	LS 29E 5100	21E6	Marion Forks	28 11S 7E 2730	5E 1500'	22G16	Lake of the Woods	11 37S 11E 1350	
1875	Highway Camp	(Nev) 31 15N 56200	55 15N 56200	1902	John Day River Basin	33	LS 29E 5100	21E7	Mill City	29 9S 3E 826	5E 1500'	22G17	Park Headquarters	11 37S 11E 1350	
1875	Jack Creek, Lower	(Nev) 16 12N 53000	36 12N 53000	1803	Anthony Lake	16	15 31S 725	21E8	Santiam Junction	14 35S 7E 3990	5E 1500'	22G18	Quartz Mountain	11 37S 11E 1350	
1875	Lucky Ranch, Upper	(Nev) 9 12N 53000	36 12N 53000	1902	Arbuckle Mountain	33	LS 29E 5100	21E9	Whitewater Bridge	28 10S 7E 2175	5E 1500'	22G19	Seven Lakes No. 1	3 35S 58 6800	
1875	Ridge Flat	(Nev) 19 12N 53000	36 12N 53000	1902	John Day River Basin	33	LS 29E 5100	21E10	Seven Lakes No. 2	26 12S 7E 1250	5E 1500'	22G20	Seven Lakes No. 2	26 12S 7E 1250	
1875	Silver City	(Nev) 36 15N 68000	55 15N 68000	1803	Blue Mountain	33	LS 29E 5100	21E11	McKenzie River Basin	26 12S 7E 1250	5E 1500'	22G21	Seven Lakes No. 2	26 12S 7E 1250	
1875	South Mountain No. 2	(Nev) 35 15N 75 53000	55 15N 75 53000	1803	Blue Mountain	33	LS 29E 5100	21E12	McKenzie River Basin	26 12S 7E 1250	5E 1500'	22G22	Seven Lakes No. 2	26 12S 7E 1250	
1875	Taylor Canyon	(Nev) 35 15N 75 53000	55 15N 75 53000	1803	Blue Mountain	33	LS 29E 5100	21E13	White French Slide	15 16S 28 8000	5E 1500'	22G23	White French Slide	15 16S 28 8000	
MIDDLE PARK WILLAMETTE RIVER BASIN															
1875	Jack Creek, Upper	(Nev) 9 12N 53000	36 12N 53000	1803	Anthony Lake	16	15 31S 725	21E14	Dead Grade	13 16S 7E 3800	5E 1500'	2039	Strawberry	4 35S 58 6800	
1875	Lucky Ranch	(Nev) 19 12N 53000	36 12N 53000	1902	Arbuckle Mountain	33	LS 29E 5100	21E15	Lost Creek Ranch	24 11S 6S 1716	5E 1500'	2040	Summer Rain	15 22S 7E 1350	
1875	Ridge Flat	(Nev) 36 15N 68000	55 15N 68000	1803	Blue Mountain	33	LS 29E 5100	21E16	McKenzie Spring	25 15S 6S 1600	5E 1500'	2041	Taylor Battle	16 33S 11E 5100	
1875	Silver City	(Nev) 36 15N 68000	55 15N 68000	1902	Blue Mountain	33	LS 29E 5100	21E17	McKenzie Bridge	23 15S 6S 1717	5E 1500'	2042	Summer Rain	15 22S 7E 1350	
1875	South Mountain No. 2	(Nev) 35 15N 75 53000	55 15N 75 53000	1803	Blue Mountain	33	LS 29E 5100	21E18	White Mountain Summit	28 16S 7E 3200	5E 1500'	2043	Taylor Battle	16 33S 11E 5100	
1875	Taylor Canyon	(Nev) 35 15N 75 53000	55 15N 75 53000	1803	Blue Mountain	33	LS 29E 5100	21E19	White Mountain Summit	28 16S 7E 3200	5E 1500'	2044	Summer Rain	15 22S 7E 1350	
COAST PARK WILLAMETTE RIVER BASIN															
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1803	Marion Creek	28 15S 725	22F1	Cascade Summit	7 23S 6E 1600	5E 1500'	2233	Cascade Summit	5 39S 21E 5720		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F2	McQuillan Creek	25 12S 6E 1600	5E 1500'	2031	Cox Flat	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F3	McQuillan Creek	25 12S 6E 1600	5E 1500'	2032	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F4	McQuillan Creek	25 12S 6E 1600	5E 1500'	2033	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F5	McQuillan Creek	25 12S 6E 1600	5E 1500'	2034	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F6	McQuillan Creek	25 12S 6E 1600	5E 1500'	2035	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F7	McQuillan Creek	25 12S 6E 1600	5E 1500'	2036	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F8	McQuillan Creek	25 12S 6E 1600	5E 1500'	2037	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F9	McQuillan Creek	25 12S 6E 1600	5E 1500'	2038	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F10	McQuillan Creek	25 12S 6E 1600	5E 1500'	2039	McQuillan Creek	16 37S 11E 5750		
1875	McQuillan Creek	(Nev) 16 12N 57000	36 12N 57000	1902	Marion Creek	28 15S 725	22F11	McQuillan Creek	25 12S 6E 1600	5E 1500'	2040	McQuillan Creek	16 37S 11E 5750		
OREGON & CALIFORNIA COAST DRAINAGE															
1875	Blue Mountain Spring	21 15S 57000	35E 58000	1803	Orr	16	13S 23E 5670	22F9	Champion	12 23S 6E 1500'	5E 1500'	2041	Guadalupe River Basin	(New) 17 45N 21E 6720	
1875	Crane Prairie	21 15S 57000	35E 58000	1803	Marion Creek	21	15S 23E 5670	22F10	Golden Curry Creek	1 23S 6E 1500'	5E 1500'	2042	Abert Lake Basin	19H1	
1875	Eldorado Pass	17E12	29E 52000	1803	Oreocreek	21	15S 23E 5670	22F11	Grizzly Creek	31 21S 6E 1500'	5E 1500'	2043	Guadalupe River Basin	19H2	
1875	Elk Creek	10 16S 33S 51000	23 16S 32S 51000	1803	Oreocreek	21	15S 23E 5670	22F12	Grizzly Creek	31 21S 6E 1500'	5E 1500'	2044	Guadalupe River Basin	19H3	
1875	Rock Spring	21 15S 57000	35E 58000	1803	Oreocreek	21	15S 23E 5670	22F13	Grizzly Creek	31 21S 6E 1500'	5E 1500'	2045	Guadalupe River Basin	19H4	
1875	Stinking Water	21 15S 57000	35E 58000	1803	Oreocreek	21	15S 23E 5670	22F14	Grizzly Creek	31 21S 6E 1500'	5E 1500'	2046	Guadalupe River Basin	19H5	
BURNET RIVER BASIN															
1875	Barney Creek	16 14S 36E 55000	21 16S 31E 55000	1803	Orr	16	15 23E 5670	22F15	Champion	12 23S 6E 1500'	5E 1500'	2047	Almond Lake Basin	23 20S 7E 5900	
1875	Blue Mountain Spring	21 15S 57000	35E 58000	1803	Oreocreek	21	15 23E 5670	22F16	Champion	12 23S 6E 1500'	5E 1500'	2048	Almond Lake Basin	23 20S 7E 5900	
1875	Crane Prairie	21 15S 57000	35E 58000	1803	Oreocreek	21	15 23E 5670	22F17	Champion	12 23S 6E 1500'	5E 1500'	2049	Almond Lake Basin	23 20S 7E 5900	
1875	Eldorado Pass	17E12	29E 52000	1803	Oreocreek	21	15 23E 5670	22F18	Champion	12 23S 6E 1500'	5E 1500'	2050	Almond Lake Basin	23 20S 7E 5900	
1875	Elk Creek	10 16S 33S 51000	23 16S 32S 51000	1803	Oreocreek	21	15 23E 5670	22F19	Champion	12 23S 6E 1500'	5E 1500'	2051	Almond Lake Basin	23 20S 7E 5900	
1875	Rock Spring	21 15S 57000	35E 58000	1803	Oreocreek	21	15 23E 5670	22F20	Champion	12 23S 6E 1500'	5E 1500'	2052	Almond Lake Basin	23 20S 7E 5900	
1875	Stinking Water	21 15S 57000	35E 58000	1803	Oreocreek	21	15 23E 5670	22F21	Champion	12 23S 6E 1500'	5E 1500'	2053	Almond Lake Basin	23 20S 7E 5900	
HOO RIVER BASIN															
1875	Schneider Meadows	35 6S 54000	45E 54000	21D6	Brooks Meadows	2	2S 10E 1300	22G1	Oregon Caves	9 16S 6E 1600	5E 1500'	2054	Almond Lake Basin	23 20S 7E 5900	
1875	GRANDE RONDE RIVER BASIN	35 6S 54000	45E 54000	21D6	Brooks Meadows	2	2S 10E 1300	22G2	Oreocreek	9 16S 6E 1600	5E 1500'	2055	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Lake No. 1	16 15S 7E 58000	21D6	Brooks Meadows	2	2S 10E 1300	22G3	Oreocreek	9 16S 6E 1600	5E 1500'	2056	Almond Lake Basin	23 20S 7E 5900		
1875	Anthony Lake No. 2	16 15S 7E 58000	21D6	Brooks Meadows	2	2S 10E 1300	22G4	Oreocreek	9 16S 6E 1600	5E 1500'	2057	Almond Lake Basin	23 20S 7E 5900		
1875	Anthony Lake	16 15S 7E 58000	21D6	Brooks Meadows	2	2S 10E 1300	22G5	Oreocreek	9 16S 6E 1600	5E 1500'	2058	Almond Lake Basin	23 20S 7E 5900		
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G6	Oreocreek	9 16S 6E 1600	5E 1500'	2059	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G7	Oreocreek	9 16S 6E 1600	5E 1500'	2060	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G8	Oreocreek	9 16S 6E 1600	5E 1500'	2061	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G9	Oreocreek	9 16S 6E 1600	5E 1500'	2062	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G10	Oreocreek	9 16S 6E 1600	5E 1500'	2063	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G11	Oreocreek	9 16S 6E 1600	5E 1500'	2064	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G12	Oreocreek	9 16S 6E 1600	5E 1500'	2065	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G13	Oreocreek	9 16S 6E 1600	5E 1500'	2066	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G14	Oreocreek	9 16S 6E 1600	5E 1500'	2067	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10E 1300	22G15	Oreocreek	9 16S 6E 1600	5E 1500'	2068	Almond Lake Basin	23 20S 7E 5900	
1875	Anthony Reservoir	6 5S 57000	35E 57000	21D6	Brooks Meadows	2	2S 10								



WATER CONTENT of SNOW on OREGON WATERSHEDS

on snow surveys made on approximately first day of month
(Valley Lands Not Necessarily Included)

Scale in Miles

Surveys in Valley Lake

-0-10805-L
DECEMBER 1954

PRELIMINARY WATER SUPPLY OUTLOOK
FOR OREGON

January 1, 1955

Outlook for Oregon's 1955 water supplies is "fair" to "poor" with serious deficiencies to be expected, particularly east of the Cascade Mountains unless much above normal snows occur later in the winter.

SNOW-COVER: Water content of mountain snow-cover averages 78 percent normal on 35 measured snow courses with records of 10 years or more compared with 85 percent normal a year ago. Measurements above 5000 feet average 67 percent normal. Below 5000 feet snow-cover is 93 percent normal. Snow-cover varies from 124 percent normal on the Umpqua watershed to 50-55 percent normal on the Burnt, Grande Ronde and John Day watersheds. Normally, about 40 percent of the total winter's snow is accumulated by January 1. This year only 30 percent of the normal total winter's snow has been received.

SOIL MOISTURE: Watershed soils are extremely dry throughout the state. Willamette basin soils appear to be in the best condition of any in the state, but are below normal in soil moisture.

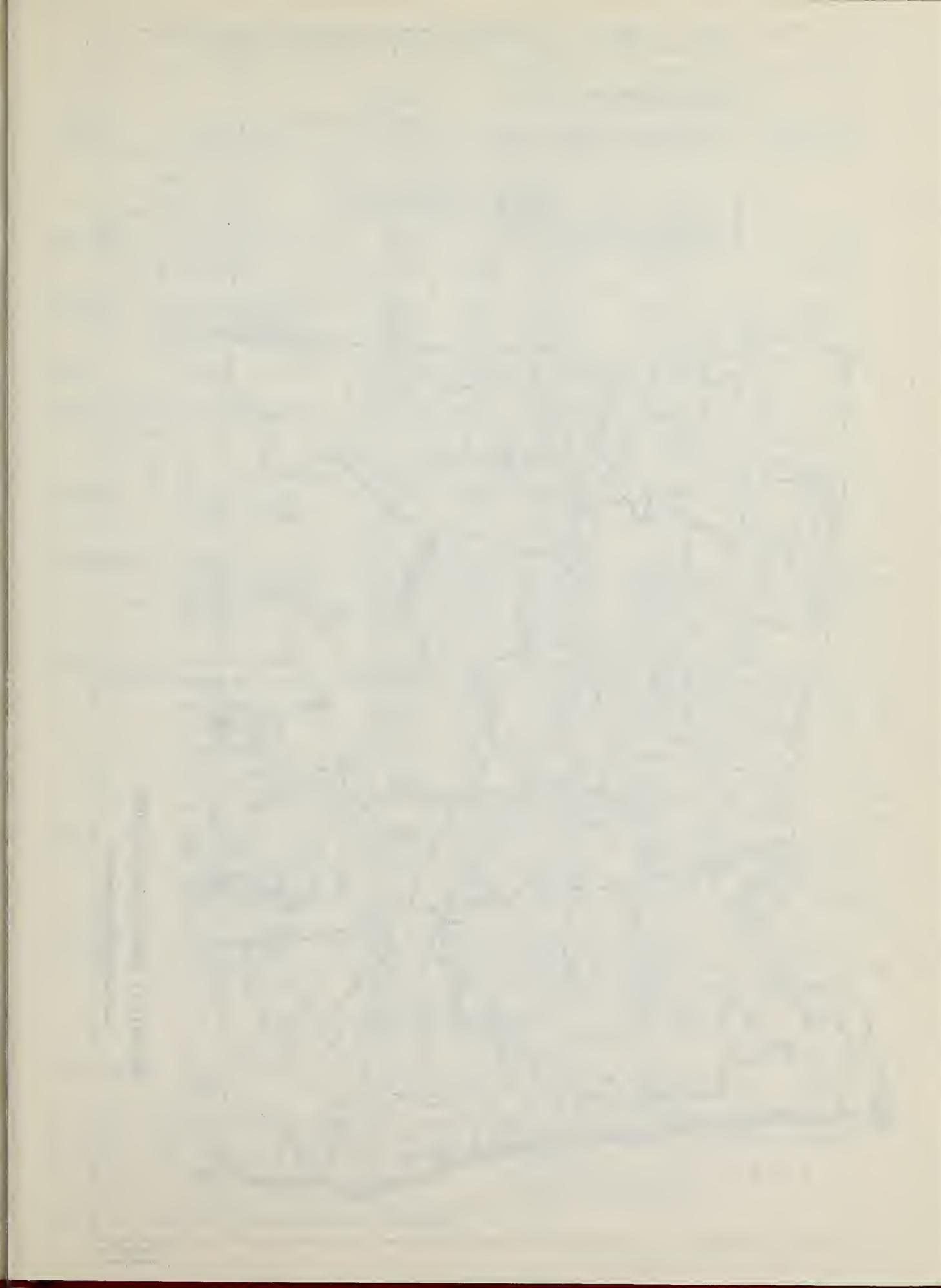
RESERVOIRED WATER: Stored water in 21 important Oregon reservoirs (exclusive of Owyhee) is 25 percent less than last year and 6 percent greater than the 10 year average (1943-52). Owyhee is only 38 percent of average and as such is at it's lowest since construction. Storage in Warm Springs, McKay and Cold Springs reservoirs is also exceptionally low.

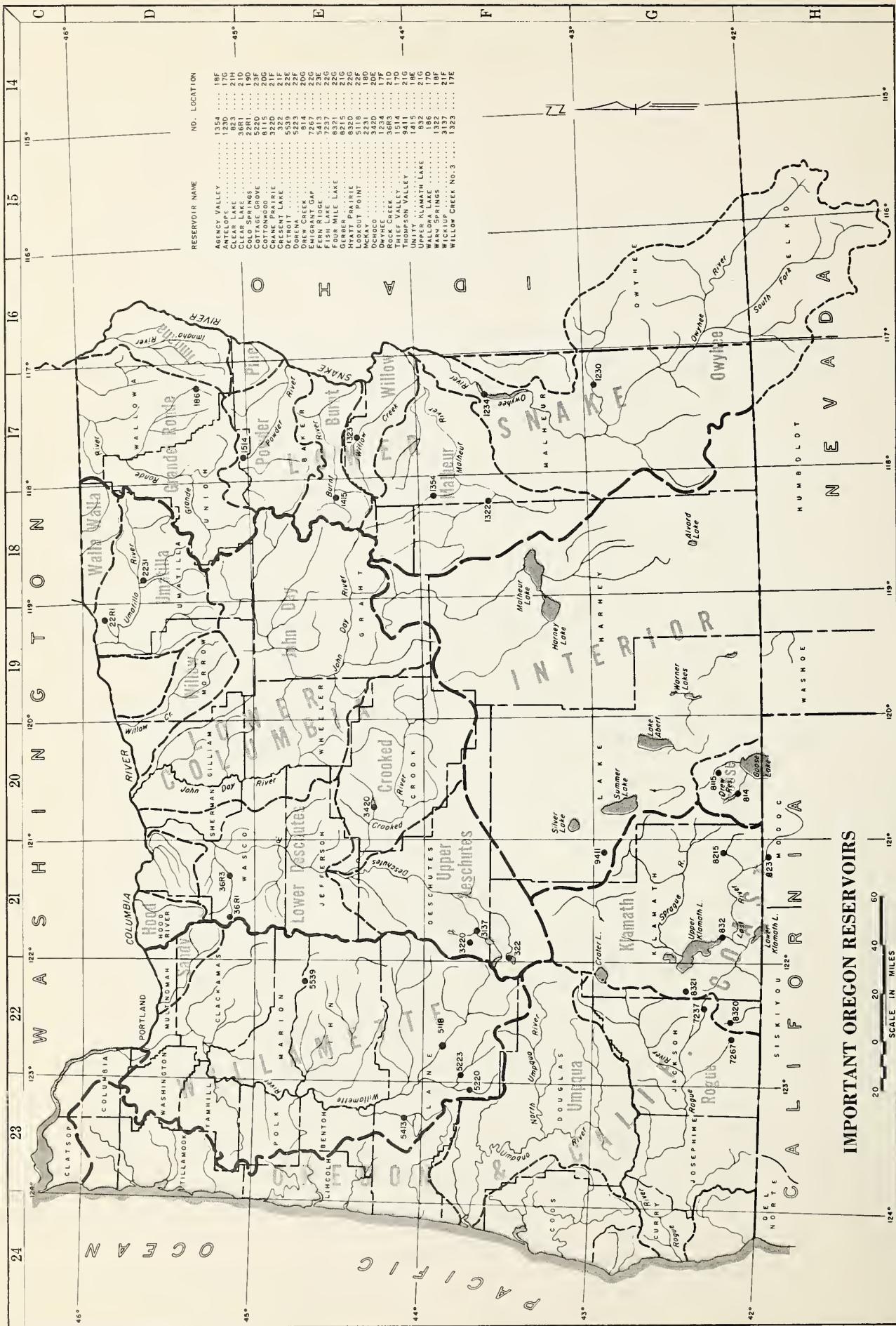
PRECIPITATION: State-wide precipitation¹ this fall (September 1954 - November 1954) averages about 50 percent normal (1943-52) varying from 29 percent in the Upper Deschutes to 62 percent in the Willamette Valley. December precipitation was 73 percent normal. Precipitation, September - December, has been 58 percent normal varying from 30 percent in the Upper Deschutes to 70 percent in the Willamette Valley.

STREAMFLOW: Outlook for April - September streamflow is "fair" to "poor". Preliminary forecasts will be published beginning February 1. Streamflow, October through December², has been nearly normal, with December flows much below normal. Flow of the John Day since October 1 has been 92 percent normal (1921-45 period) and the Umpqua 58 percent. Inflow to Upper Klamath Lake has been 135 percent for the same period.

¹From preliminary data furnished by U.S. Weather Bureau, Portland, Oregon.

²From preliminary data furnished by U.S. Geological Survey, Portland, Oregon.





IMPORTANT OREGON RESERVOIRS

STATUS OF OREGON RESERVOIR STORAGE - JANUARY 1, 1955

BASIN and STREAM	RESERVOIR	USABLE CAPACITY (M.A.F.)	THOUSAND ACRE FEET IN STORAGE ABOUT JANUARY FIRST				10-Yr.Avg. 1943-52			
			1955	1954	1953					
<u>UPPER COLUMBIA DRAINAGE</u>										
<u>Lower Snake in Oregon</u>										
<u>Owyhee</u>	Antelope	36.5	N.R.	N.R.	6.7 ^f		2.2 ^d			
	Owyhee	715.0	156.0	420.8	472.9		405.4			
<u>Malheur</u>	Warm Springs	191.0	18.9	102.0	97.2		48.4			
	Agency Valley	60.0	17.0	17.1	12.7		27.4			
<u>Burnt</u>	Unity	25.2	2.7	2.2	3.2		6.5			
<u>Grande Ronde</u>	Wallowa Lake	40.9	17.8	33.2	25.6		18.4			
<u>LOWER COLUMBIA DRAINAGE</u>										
<u>Umatilla</u>	McKay	74.0	6.9	26.0	9.9		29.1			
	Cold Springs	50.0	8.1	19.7	9.5		22.7			
<u>Deschutes</u>	Ochoco	46.0	21.7	30.6	19.2		20.5			
	Crescent Lake	54.9	25.4	6.1	45.2		42.5			
	Crane Prairie	55.3	37.1	38.9	27.8 ^f		31.9			
	Wickiup	187.3	190.6	173.6	125.2		76.7			
<u>Willamette</u>	Cottage Grove	30.1 ^a	1.0	0.2	0.0		0.5			
	Dorena	70.5 ^a	8.9	0.2	0.1		— —			
	Fern Ridge	94.2 ^a	2.2	0.1	0.2		4.5 ^e			
	Detroit	340.0 ^a	25.0	57.0	N.R.		— —			
	Lookout Pt.	350.0 ^a	29.0	— —	— —		— —			
	<u>OREGON AND CALIFORNIA COAST DRAINAGE</u>									
<u>Rogue</u>	Fish Lake	7.8	5.1	6.7	5.9		4.1			
	Fourmile Lake ^b	16.1	8.3	15.6	10.9		6.1			
	Emigrant Gap	8.3	1.0	4.3	2.7		3.9			
	Hyatt Prairie ^b	16.1	9.4	11.2	9.6		3.6			
<u>Klamath</u>	Upper Klamath Lk.	584.0 ^c	280.7	407.8	317.3		286.8			
	Gerber	94.0	26.9	49.2	40.1		29.3			
	Clear Lake	440.2	219.2	245.2	195.9		174.5			
<u>INTERIOR DRAINAGE</u>										
<u>Goose Lake</u>	Cottonwood	4.1	0.1	0.3	0.0		0.0 ^e			
	Drew	62.5	23.2	36.2	39.4		33.6			

N.R.--No Report.

^aStorage space reserved for flood control.^bBy ditch to Rogue River side from Klamath Drainage.^cBased on gage zero elevation of 4135.0.^d1943, 1949, 1950, and 1952 excepted^e1944-52^fPartly estimated

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Oregon stream basins presents the water content of the snow about January 1, 1955, as percent of the same date in 1954 and 1953 and average of record.

DRAINAGE	No. of Courses Averaged	Yrs. of Record	January 1, 1955 Water Content as percent of		
			1954	1953	Avg.

UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)

Owyhee River	1	8	59	68	67
Malheur River	1 - 2	10 - 17	30	18	77
Burnt River	2	16 - 19	63	40	55
Powder River	2	12 - 16	112	57	90
Grande Ronde River	2	15	42	84	55

LOWER COLUMBIA DRAINAGE

John Day River	2	18 - 19	39	48	50
Deschutes River	2	13 - 17	125	61	88
Willamette Valley Streams	4	13 - 17	126	78	95
Clackamas River	1	17	115	79	98
Santiam Rivers	3	13	129	77	94
McKenzie River	2	13	123	82	95
Middle Fork Willamette River	2	6 - 7	108	57	69
Coast Fork Willamette River	1	6	153	54	87

OREGON AND CALIFORNIA COAST DRAINAGE

Umpqua River	1	25	173	62	124
Rogue River	7 - 8	11 - 17	80	28	51
Klamath Lake Basin	13 - 15	14 - 28	122	35	71
Williamson River	8 - 9	14 - 27	137	32	69
Sprague River	4 - 5	15 - 27	424	30	109
Gerber-Clear Lake Basin	1	15	188	39	100

INTERIOR DRAINAGE

Goose Lake Basin	1	15	188	39	100
Harney Basin	2 - 3	10 - 18	27	15	75

4.

OREGON SNOW SURVEYS - ABOUT JANUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS														
			Date of Survey	Snow Depth (In.)	Water Content (In.)	1955			Past Record								
						1954	1953	Avg.	Years of Record								
<u>U P P E R C O L U M B I A D R A I N A G E</u> <u>LOWER SNAKE IN OREGON</u>																	
<u>OWYHEE RIVER</u>																	
Silver City So. Mountain No. 2	16F3 16G1	6400 6340	1/2 1/3	26 18	4.5 3.7	7.6 7.1	6.6 5.0	6.7 5.1	8 10								
<u>MALHEUR RIVER</u>																	
Blue Mtn. Springs Rock Spring Stinking Water	18E16 18F1 18F4	5900 5100 4800	Report 12/29 12/31	Delayed 9 14	0.8 4.0	- - 2.7	6.9 4.4	6.1 2.6	18 17								
<u>BURNT RIVER</u>																	
Dooley Mountain Blue Mtn. Summit Tipton	17E1 18E13 18E9	5430 5098 5100	1/4 1/3 1/7	12 14 21	2.1 2.1 3.8	2.6 4.1 4.3	6.2 4.4 5.6	3.9 3.8 4.9	16 19 2								
<u>POWDER RIVER</u>																	
Anthony Lake Goodrich Lake Dooley Mountain Eilertson Meadows	18E1 18E6 17E1 18E3	7125 6775 5430 5400	Report Not surveyed 1/4 1/1	Delayed - - 12 33	14.4 - - 2.6 5.4	7.4 - - 6.2 4.1	11.2 14.7 3.9 4.4	15 4 16 12									
<u>GRANDE RONDE RIVER</u>																	
Anthony Lake Moss Spring Beaver Reservoir Schoolmarm County Line	18E1 17D6 18D9 18D7 18D8	7125 5850 5340 4775 4775	Report 1/3 1/1 1/3 1/3	Delayed 37 15 14 15	14.4 14.3 5.2 2.9 2.9	7.4 7.3 2.6 3.6 4.7	11.2 10.0 5.0 4.1 3.7	15 15 15 4 3									
<u>UMATILLA RIVER</u>																	
<u>LO W E R C O L U M B I A D R A I N A G E</u>																	
<u>JOHN DAY RIVER</u>																	
*Anthony Lake Olive Lake Blue Mtn. Springs Blue Mtn. Summit Schoolmarm Tipton	18E1 18E7 18E16 18E13 18D7 18E9	7125 6000 5900 5098 4775 5100	Report 12/31 Report 1/3 1/3 1/7	Delayed 27 Delayed 14 14 21	14.4 10.1 - - 4.1 2.9 3.8	7.4 - - 6.9 4.4 3.6 4.3	11.2 7.3 6.1 3.8 4.1 4.9	15 18 18 19 4 2									

*Not located directly on this drainage area.

bTelegraphic.

OREGON SNOW SURVEYS - ABOUT JANUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							Years 1954
			Date of Survey	1955		Past Record			1953	Avg.
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)		
<u>DESCHUTES RIVER</u>										
Cascade Summit	22F3	4880	1/2	47	9.9	11.8	16.3	17.1	7	
*Chemult	21F11	4760	12/31	16	3.7	1.9	12.0	4.5	17	
Hogg Pass	21E6	4755	1/1	61	15.9	13.8	20.0	17.8	13	
<u>WILLAMETTE VALLEY STREAMS</u>										
<u>SANDY RIVER¹</u>										
Phlox Point	21D8	5600	1/3	70	24.3	32.2	22.4	23.6	15	
Still Creek	21D9	3700	1/3	35	9.2	10.4	12.6	8.9	14	
<u>CLACKAMAS RIVER</u>										
Peavine Ridge	21D14	3500	1/2	27	6.2	5.4	7.8	6.3	17	
Big Bottom	21D15	2118	1/2	14	3.4	0.0	4.1	2.4	4	
Lake Harriet	21D16	2045	1/2	4	0.9 ^a	0.0	2.4	1.2	4	
Snow Line: About 1000'										
<u>SANTIAM RIVERS</u>										
Hogg Pass	21E6	4755	1/1	61	15.9	13.8	20.0	17.8	13	
Santiam Junction	21E5	3990	1/1	38	10.9	8.0	12.8	10.3	13	
Marion Forks	21E4	2730	1/1	20	4.8	2.7	8.0	5.5	13	
Breitenbush	21E2	2325	Not surveyed		--	--	--	1.7	8	
Whitewater Bridge	21E3	2175	1/1	10	2.0	0.0	3.8	4.3	5	
Detroit (new town)	22E1	1500+	1/1	T	T	0.0	0.0	0.9	5	
Detroit Dam	22E2	1580	1/1	0	0.0	0.0	0.0	1.0	5	
Mill City	22E3	826	1/1	0	0.0	0.0	0.0	0.0	4	
Snow Line: About 1600'										
<u>McKENZIE RIVER</u>										
McKenzie	21E7	4800	1/3	62	11.8	13.9 ^a	15.9	19.2	4	
Hogg Pass	21E6	4755	1/1	61	15.9	13.8	20.0	17.8	13	
Santiam Junction	21E5	3990	1/1	38	10.9	8.0	12.8	10.3	13	
Dead Horse Grade	21E8	3800	1/3	33	4.0	7.8	9.0	9.3	4	
White Branch Slide	21E9	2800	1/3	7	0.9 ^a	T	4.7	2.7	4	
Lost Creek Ranch	22E4	1746	1/3	3	T	0.0	T	T	3	
McKenzie Bridge	22E5	1372	1/3	T	T	0.0	0.0	T	4	
Vida	22E6	800	1/3	0	0.0	0.0	0.0	0.0	4	
Snow Line: About 1300'										

*Not directly located on this drainage area.

¹Not strictly a part of the Willamette drainage; these surveys are indicative of west slope conditions.

^aPartly estimated.

OREGON SNOW SURVEYS - ABOUT JANUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						Years of 1954 1953 Avg. Record	
			1955		Past Record					
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)				

WILLAMETTE VALLEY STREAMS (Cont'd.)

MIDDLE FORK WILLAMETTE RIVER

Cascade Summit	22F3	4880	1/2	47	9.9	11.8	16.3	17.1	7
Champion	22F9	4500	1/3	41	9.8	6.4	18.1	11.3	6
Salt Creek Falls	22F4	4000	1/2	30	7.4	6.4	8.4	8.3	5
Railroad Overpass	22F5	2750	1/2	7	1.0	T	1.6	2.1	5
McCredie Spring	22F6	2120	1/2	2.5	0.4	0.0	0.0	0.7	5
Oakridge	22F7	1310	1/2	T	T	0.0	0.0	0.1	5
Meridian Dam	22F8	750	1/2	0	0.0	0.0	0.0	0.0	3
Snow Line: About 1200'									

COAST FORK WILLAMETTE RIVER (Row River)

Champion	22F9	4500	1/3	41	9.8	6.4	18.1	11.3	6
Golden Curry Creek	22F10	3136	1/3	11	1.4	0.0	5.7	8.1	4
Weaver Creek	22F11	2440	1/3	2	0.3 ^a	0.0	0.0	0.7	3
Lund Park	22F12	1740	1/3	T	T	0.0	0.0	2.5	4
Layng Creek R.S.	22F13	1200	1/3	0	0.0	0.0	0.0	T	4
Snow Line: About 1700'									

OREGON AND CALIFORNIA COAST DRAINAGE

UMPQUA RIVER

Diamond Lake	22F18	5315	1/4	38	9.7	5.6	15.7	7.8	25
Champion	22F9	4500	1/3	41	9.8	6.4	18.1	11.3	6
N. Umpqua nr. Lake Cr	22F16	4215	1/2	30	7.0	No previous record			

*Park Headquarters	22G5	6450	1/3	71	15.7	20.2	29.0	23.9	9
Scragg Mountain	22H1	6200	12/27	21	6.2	3.9	21.8	10.6	11
*Annie Spring	22G6	6018	1/3	54	10.2	12.2	25.3	16.3	14
*Fourmile Lake	22G12	6000	12/21	12	2.4	7.8	--	7.8	1
Billie Creek Divide	22G13	5300	12/21	9	1.7	9.0	--	9.9	14
Hobart Lake	22G17	5010	12/29	6	2.2	0.0	7.7	4.6	5
*Hyatt Prairie Res.	22G16	4900	12/29	9	2.2	3.0	9.4	4.4	17
Fish Lake	22G14	4865	12/20	3.7	0.9	5.1	8.9	5.5	15
Siskiyou Summit	22G20	4630	1/1	5	1.1	T	14.3	4.1	15
Silver Burn	22G2	3720	12/30	28	5.1	3.0	12.0	4.3	17
South Fork Canal	22G9	3500	12/30	6	1.5	0.0	5.3	1.4	16

*Not directly located on this drainage area.

^aPartly estimated.

OREGON SNOW SURVEYS - ABOUT JANUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							
			Date of Survey	Snow Depth (In.)	Water Content (In.)	1955		Past Record		Years
			1954	1953	Avg.	Water Content (In.)	Record			
<u>KLAMATH LAKE BASIN</u>										
Park Headquarters	22G5	6450	1/3	71	15.7	20.2	29.0	23.9	9	
Annie Spring	22G6	6018	1/3	54	10.2	12.2	25.3	16.3	14	
Fourmile Lake	22G12	6000	12/21	12	2.4	7.8	- -	7.8	1	
*Quartz Mtn. (COPCO)	9	5504	Report delayed.			- -	8.0	3.2	23	
Sun Mountain	21G2	5350	12/28	19	3.8	4.8	19.8	11.2	15	
*Quartz Mountain	20G6	5320	1/2	12	3.2 ^b	1.7	8.3	3.2	15	
Billie Creek Divide	22G13	5300	12/21	9	1.7	9.0	- -	9.9	14	
Lake of the Woods	22G15	4960	12/31	19	8.4	4.3	10.2	4.1	18	
Hyatt Prairie Res.	22G16	4900	12/29	9	2.2	3.0	9.4	4.4	17	
Gerber	21G4	4850	1/2	12	2.0	- -	3.9	3.1	4	
Bly 101 Ranch (COPCO)	10	4800	12/31	10	1.6	0.0	3.8	0.9	27	
Chemult	21F11	4760	12/31	16	3.7	1.9	12.0	4.5	17	
Yamsey (COPCO)	12	4600	12/31	9	2.2	T	- -	1.2	24	
Kirk (COPCO)	6	4533	12/31	12	3.5	0.2	7.8	2.8	27	
Beatty (COPCO)	1	4300	12/31	1.5	0.2	0.0	0.8	0.2	27	
Crystal (COPCO)	4	4200	12/31	15	3.8	0.9	9.9	3.5	25	
Harriman Lodge (COPCO)	8	4200	12/31	6	1.8	0.9	6.8	2.0	27	
Chiloquin (COPCO)	3	4187	12/31	0	0.0	0.0	3.7	1.1	25	
Fort Klamath (COPCO)	5	4150	12/31	6	1.0	0.0	6.4	1.6	28	
<u>GOOSE LAKE BASIN</u>										
Quartz Mtn. (COPCO)	9	5504	Report delayed.			- -	8.0	3.2	23	
Quartz Mountain	20G6	5320	1/2	12	3.2 ^b	1.7	8.3	3.2	15	
<u>CHEWAUCAN RIVER</u>										
*Quartz Mountain	20G6	5320	1/2	12	3.2 ^b	1.7	8.3	3.2	15	
<u>HARNEY BASIN</u>										
Idlewild Camp	18F3	5200	12/29	6	0.5	2.2	4.2	2.6	18	
Rock Spring	18F1	5100	12/29	9	0.8	2.7	4.4	2.6	17	
Stinking Water	18F4	4800	12/31	14	4.0	- -	- -	1.9	10	

*Not located directly on this drainage area.

(COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

^bTelegraphic.

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						Years 1954 1953 Avg. Record
			Date of Survey	1955		Past Record			
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Years 1954 1953 Avg. Record		

D E C E M B E R 1, 1 9 5 4

WILLAMETTE VALLEY STREAMS

CLACKAMAS RIVER

Peavine Ridge	21D14	3500	12/4	1.0	T	1.8	0.0	2.7	6
Big Bottom	21D15	2118	12/4	0.0	0.0	T	- -	0.9	3
Lake Harriet	21D16	2045	12/4	0.0	0.0	0.0	- -	0.2	3

ADDENDUM

J A N U A R Y 1, 1 9 5 5

UMATILLA RIVER

Tollgate	18D3	5070	1/1	35.0	6.7	No previous record
Meacham	18D5	4300	1/2	24.0	4.6	No previous record
Emigrant Springs	18D4	3925	1/2	27.0	5.1	No previous record

OREGON PRECIPITATION^a

DRAINAGE DIVISIONS	FALL			
	Sept.-Oct.-Nov. 1954 ^b	Observed	Departure ^b	December 1954
Southeastern	0.96	-1.72	1.29	-0.17
Blue Mountains	2.38	-2.81	1.86	-0.83
Wallowa Mountains	3.01	-2.75	1.65	-0.90
Lower Columbia	3.14	-2.21	1.36	-1.09
Upper Deschutes	1.12	-2.79	0.67	-1.27
Willamette Valley	10.91	-6.72	7.19	-1.03
Southwestern	3.16	-4.68	3.30	-0.86
South-Central	1.49	-2.18	1.27	-0.63

<u>Southeastern</u>	- Owyhee and lower Malheur drainages.
<u>Blue Mountains</u>	- Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.
<u>Wallowa Mountains</u>	- Imnaha, Wallowa and Catherine drainages.
<u>Lower Columbia</u>	- Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.
<u>Upper Deschutes</u>	- Upper Deschutes and Crooked drainages.
<u>Willamette Valley</u>	- All Willamette drainages.
<u>Southwestern</u>	- Umpqua, Rogue and Williamson drainages.
<u>South-Central</u>	- Sprague, Lost and Interior Basin drainages.

a - Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Services of Canada and U. S. Weather Bureau.

b - Departure from 10-year (1943-52) drainage division average.

The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State highway Engineers

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Department of National Defense
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

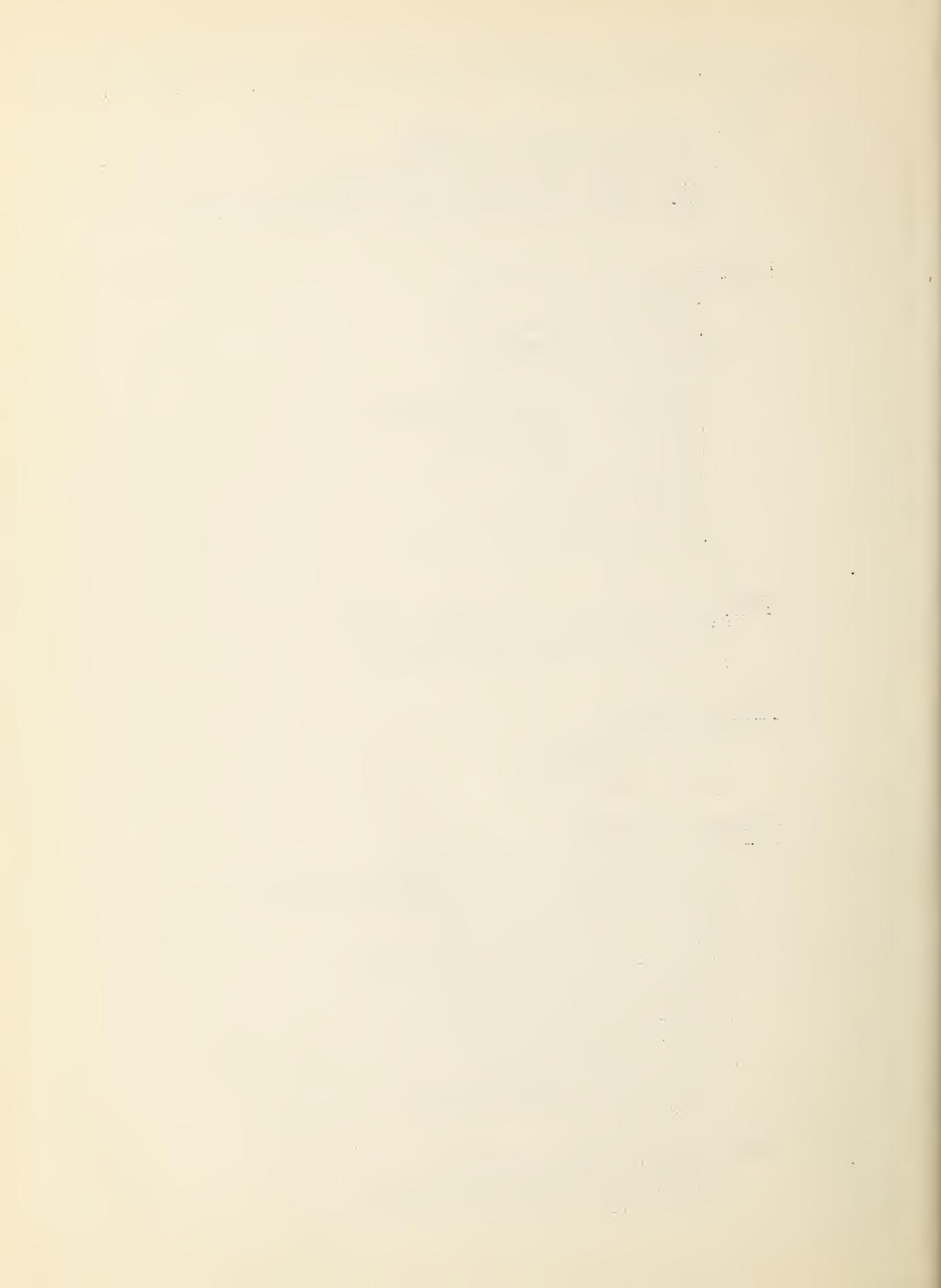
City of Baker
City of La Grande
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
South Wasco Soil Conservation District
The Crag Rats, Hood River, Oregon





Federal - State - Private

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"